

# PATENT ABSTRACTS OF JAPAN

B20

(11)Publication number : 62-232919

(43)Date of publication of application : 13.10.1987

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(51)Int.Cl.

H01L 21/205

H01L 21/263

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(21)Application number : 61-076284

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(22)Date of filing : 02.04.1986

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## (54) CRYSTAL GROWTH

### (57)Abstract:

PURPOSE: To realize ideal atomic layer epitaxy, by supplying raw material gases alternately and performing luminous radiation on a surface of a substrate crystal.

CONSTITUTION: At least two kinds of raw material gases are alternately supplied in a vapor epitaxial growth method of compound crystal, and luminous radiation is performed on a surface of a substrate crystal. Then, growth temperature is made to become low, and therefore thermal decomposing reaction of the compound in the raw material gas is suppressed, so that surface photo-chemical reaction becomes a main one. Therefore, atomic layers are made to epitaxially grow digitally one by one on the substrate crystal. Hence, ideal atomic layer epitaxy is realized.

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## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the  
examiner's decision of rejection or application  
converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of  
rejection]

[Date of requesting appeal against examiner's decision  
of rejection]

[Date of extinction of right]